



SUBMISSION OF COMMENTS ON NET NEUTRALITY

Q.1 What could be the principles for ensuring non-discriminatory access to content on the Internet, in the Indian context?

The ideal definition of non-discriminatory access to content should be standard across the globe. However, as the consultation paper rightfully suggests, the definition differs in different countries, and hence there is a need to have an Indian definition as well. There is a need for localisation, as one size does not fit all.

The demand and supply scenario for data services in India is pretty skewed, which may require better handling in terms of traffic management, but not in terms of neutrality. The core principle of access to content on the Internet should always be “Any content originating from and destined to any lawful source, should be treated equally, irrespective of the type of data, device and hour of transmission/reception. The data packet may only be differentiated, applicable only during the time of congestion (e.g. more than 90 percent usage of the bandwidth) or security threat. Even in this situation, the data packets should not be classified on any parameter except time sensitivity and security threat. Specifics of time sensitivity or the protocols to be prioritised and the classification of threats should be designed by TRAI in consultation with relevant government departments and non-state actors.

The Traffic Management Practices (TMPs), incorporating the said distinctions, classifications and conditions, need to be approved by the authority (in detail) and the information (in simplified version) should be provisioned to the consumers. This is also to state that the TMPs should be neutral and should not have any bias (to any content entity/type) or any commercial associations/agreements.”

In Indian context, the core principles could be designed on the lines of the United States Federal Communications Commission, which states the following:

1. No Blocking: No blocking of any legal content, application, service, or non-harmful devices.
2. No Throttling: The Telecom Service Providers (TSPs)/ Internet Service Providers (ISPs), should not be allowed to interfere (slow down, alter, restrict, discriminate, impair, degrade, hinder or manipulate) with the internet traffic, until there is a situation of congestion or security threat.
3. Preferential treatment: The content should not be treated differentially, barring exceptions (as defined), on the basis of any sort of commercial/non-commercial agreements/interests, inherent biases or subjectivity.

Having said this, there is a need to have a clear definition, specifically, for the following terms:

1. Congestion
2. Security Threat
3. Exceptions

Q.2 How should “Internet traffic” and providers of “Internet services” be understood in the NN context?

(a) Should certain types of specialised services, enterprise solutions, Internet of Things, etc be excluded from its scope? How should such terms be defined?

The reason why internet has embedded itself to the core of all activities, social, environment or economic, is because of its unrestricted nature. This has given rise to business models, which have experienced great success. For Internet of Things (IoT) and other future technologies to flourish, there is a need to safeguard innovation. Having a restricted scenario for internet, where data would be differentiated on the basis of various parameters, might stifle innovation.

Thus, the net-neutrality principles should apply to all services, irrespective of its type. For internet and internet based services, there should be a blanket approach to disallow the TSPs to take advantage of any loopholes, which may arise in the future. Thus, there is no requirement of setting a separate definition for services and specific technologies, as they all are evolving and binding definitions may present loopholes, which may be exploited for vested interests.

(b) How should services provided by content delivery networks and direct interconnection arrangements be treated? Please provide reasons.

Content Delivery Networks (CDN) definitely influences the quality of service (QoS) for internet service and the associated experience for consumers. This may also be true, that the CDN deployment may be a part of the commercial strategy and may aid in quicker response for certain type of service/application over the internet. CDN should not be treated differentially and may be allowed to be a part of the regular internet; however, there is a need to ensure that there is no association of CDN deployment with the TSPs/ISPs. The CDN may be deployed by third parties or the content providers, but there should be no agreement between the two entities with the TSPs/ISPs.

Direct interconnection arrangements, have the prowess to seriously rupture the neutrality of internet. It might result in cartelisation of services, which may violate the net-neutrality principles. Thus, the direct interconnection arrangement should not be allowed.

It is understood that the said vigilance is an added cost and is associated with high complexity of assessments; it is still required to ensure the neutrality of these services, which may pose a big threat to the overall QoS and neutrality of internet services.

Q.3 In the Indian context, which of the following regulatory approaches would be preferable:

**(a) Defining what constitutes reasonable TMPs (the broad approach), or
(b) Identifying a negative list of non-reasonable TMPs (the narrow approach). Please provide reasons.**

CUTS recommends adoption of a broad approach for regulating the TMPs. The narrow approach may lead to some undesirable practices to be adopted by the operators, which may take some time, before being identified and established as “negative” practices. Meanwhile, it may cause severe damage to the concept of net-neutrality for consumers. The regulator can provide a code for the operators to comply with. This code would have the overarching principles on the design of the TMPs and the possible list of exemptions. Rest, the code has to be robust enough to leave no space for the inculcation of non-reasonable TMPs or practices.

Q.4 If a broad regulatory approach, as suggested in Q3, is to be followed: (a) What should be regarded as reasonable TMPs and how should different categories of traffic be objectively defined from a technical point of view for this purpose?

Response: Reasonable TMP can be simply defined as the one which doesn't discriminate between data packets because of any inherent bias or certain commercial agreements/arrangements. However, TRAI also needs to come out with a code, as mentioned in the earlier question, which will set some rules to be imbibed as governing principles for the TMP construct.

To define the different categories of traffic, it is essential to evaluate them on the basis technical and sensitivity aspects. Traffic originating from financial applications, like transactions, are highly sensitive and should be prioritised. If not concluded in real-time, these can seriously impair the financial services. Secondly, in case of emergencies, there may be a separate category of traffic which may be prioritised. After these, there should be defined categories of traffic, based on real-time nature or time sensitivity, which would be applicable only during the situation of congestion. Finally, defining these categories by the Regulator should be done in consultation with stakeholders.

(b) Should application-specific discrimination within a category of traffic be viewed more strictly than discrimination between categories?

Response: Yes, the discrimination within a category of traffic should be viewed and dealt with more strictly than that between categories. Internet, for the contemporary world, is more like a public utility (though not entirely one), which cannot discriminate between uses, unless there is a crisis. When the water is scarce, the municipal corporations ration water for usage. There can be different quantum of time of availability and quantity, for household and commercial uses, but within the household, there won't be a differentiation. This is the same how internet traffic should be dealt with.

The application/content may be categorised based on the type (as mentioned earlier, to be decided in consultation with stakeholders), which may be used in specific situation. The "situation of scarcity" for internet can either be during heavy congestion or outages. In such circumstances, the data may be "differentiated" not "discriminated" on the basis of time and performance sensitivity of data packets. E.g. VOIP data packets may be prioritised over POP/SMTP data packets, in case of congestion of the network. However, within the VOIP packets, there should be no differentiation based on the specific application it originated from.

(c) How should preferential treatment of particular content, activated by a user's choice and without any arrangement between a TSP and content provider, be treated?

Response: This is not to say that the consumer choice should be restricted here, but rather the choices can be facilitated in a different way. The responsibility of keeping the internet neutral also depends on the demand side. Preferential treatment for a specific content, fragments the internet to the core, where the service provider is conferred the responsibility to be a gatekeeper, on consumer's behalf. Once fragmentation is allowed, there is a strong possibility of malicious practices by the TSPs creeping in. The consumer can exercise a choice of opting for a slower or faster internet services rather than having preferential treatment for one specific content.

Q.5 If a narrow approach, as suggested in Q3, is to be followed what should be regarded as non-reasonable TMPs?

N/A

Q.6 Should the following be treated as exceptions to any regulation on TMPs?

(a) Emergency situations and services; Yes

(b) Restrictions on unlawful content; Yes

(c) Maintaining security and integrity of the network; Yes

(d) Services that may be notified in public interest by the Government/ Authority, based on certain criteria; or

Yes, but not for promoting government owned entities or political interests, as this may result in competition and neutrality concerns.

(e) Any other services. Please elaborate.

Q.7 How should the following practices be defined and what are the tests, thresholds and technical tools that can be adopted to detect their deployment:

(a) Blocking;

Blocking of any lawful content, destined to lawful destination and originating from a lawful source, should be prohibited and there should not be any exception to this. Defining Tests, Threshold and Technical Tools to do so are beyond our technical capacity.

(b) Throttling (for example, how can it be established that a particular application is being throttled?); and

Any specific data type receiving a lower throughput, lower than the average internet throughput for all data types

Q.8 Which of the following models of transparency would be preferred in the Indian context:

(a) Disclosures provided directly by a TSP to its consumers;

(b) Disclosures to the regulator;

(c) Disclosures to the general public; or

(d) A combination of the above. Please provide reasons. What should be the mode, trigger and frequency to publish such information?

There are two aspects of looking at this. TMPs can play a pivotal role in ensuring or dismantling net-neutrality. However, it is to understand that TMPs may also very technical in nature. The regulator has the capacity to understand this technicality, while the consumers may not have it. Considering the essentiality of information disclosure to be done in a non-discriminatory way, it shouldn't just be restrict to the regulator or the consumers. It should reach everybody. Thus, the

disclosures must be a mix of point (a) and (b). While the submission to the regulator may be technical, in detail covering all aspects, but for the general consumer it should be rather simpler. TRAI should suggest a standard mechanism/format for the operators to publish this information to the consumer in a simplified manner.

Q.9 Please provide comments or suggestions on the Information Disclosure Template at Table 5.1? Should this vary for each category of stakeholders identified above? Please provide reasons for any suggested changes.

Response: The template provided serves the purpose of information disclosure, for the QoS for internet service as well as the way traffic is managed. The template may also provide priority order for data packet types, in case of congestion. This will further help the consumers in choosing between the services, based on their usage pattern.

Q.10 What would be the most effective legal/policy instrument for implementing a NN framework in India?

(a) Which body should be responsible for monitoring and supervision?

Response: It has to be the regulator. TRAI should do the monitoring and supervision, to ensure that the Net-Neutrality principles are adhered too and if necessary, also co-opt non-state actors (academia, research organisations, etc) in this exercise.

(b) What actions should such body be empowered to take in case of any detected violation?

There has to be certain deterrents for the operators to avoid indulging into malpractices, practices which go against the net-neutrality principles. In case of call drop penalties, the TRAI's decision was overruled by the Supreme Court. Thus, there is a requirement for reforms in the TRAI act, which empowers TRAI to make penalty decisions as well.

The most appropriate actions in case of detected violations should be either hefty monetary fine for the first and second instance and suspension of licenses in case of repetitive violations. There can also be a provision of "name and shame" for the operators who would indulge in malpractices and let it have an impact on the market image and shares.

Q.11 What could be the challenges in monitoring for violations of any NN framework? Please comment on the following or any other suggested mechanisms that may be used for such monitoring:

Since, the technologies are evolving and the use of internet is getting diversified, it is becoming more difficult to identify violation of net-neutrality principles. Thus, there has to be a mixed approach to identify such practices.

(a) Disclosures and information from TSPs;

Disclosures and information from TSPs will essentially provide a service guarantee for comparison. Any substantial degradation from the promised QoS will be liable to complaints and legal scrutiny. Since, the core TMPs algorithms will already be submitted in detail to the TRAI, it may be compared to identify the violations of the NN Principles.

(b) Collection of information from users (complaints, user-experience apps, surveys, questionnaires); or

Mechanisms like SamKnows, are great tools to assimilate data on QoS, which may then be used for analysis and assessment of the level of QoS. However, in India SamKnows might face its own set of challenges on the implementation side. MySpeed app by TRAI also collects data from consumers. The complaints from consumers reaching out to the operators customer support may also be considered. Similarly, other tools such as user-experience apps, surveys, questionnaires may also add to vital data repository on QoS and instances of violation of NN principles. However, there has to be a neutral agency to do a careful analysis to gather evidences on any violation, pertaining to QoS, NN or any other mandate the operators have to adhere to. Thus, TRAI can have an analytical lab to monitor for any violation, while there should be another 3rd party agency also doing the analysis on the same.

(c) Collection of information from third parties and public domain (research studies, news articles, consumer advocacy reports).

As mentioned in response for (b), information may be collected from as many numbers of sources as possible. The greater the number of samples, the greater will be the possibility of securing credible evidences of violations.

Q.13 What mechanisms could be deployed so that the NN policy/regulatory framework may be updated on account of evolution of technology and use cases?

TRAI should have an open platform to accept feedback on the NN Policy/Regulatory Framework. These feedbacks will provide TRAI will sufficient data to assess the priority areas and areas of concern. TRAI can accordingly, pick up the relevant issues and engage with stakeholders to devise a solution. These solutions can then directly be inculcated into the existing framework, rather than reinventing the wheel and undergoing the same process again. The frequency for this can be 06 months.

Q.14 The quality of Internet experienced by a user may also be impacted by factors such as the type of device, browser, operating system being used. How should these aspects be considered in the NN context? Please explain with reasons.

Some organisations, for their employees, offer restrictive internet. Consider the case of banks, where access for only a few websites is permitted. This is an organisational policy, which is governed by the firewall and the filters in place. However, the internet services being provided by the ISPs are non-restrictive, unless the user wants to block or control certain content.

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